Potent 2420-Class of Protease Inhibitors for Treatment of COVID-19

A new class of drug compounds potently inhibits the SARS-CoV-2 3CL-pro enzyme, effectively blocking viral replication for use in COVID-19 treatment and drug discovery.

Purdue University researchers have developed a series of compounds for the treatment of COVID-19, the respiratory illness caused by the SARS-CoV-2 coronavirus strain. While a few COVID-19 treatments have been approved for emergency use, such treatments are limited to patients with mild to moderate COVID-19 symptoms or disease recurrence occur after completing the treatment course. The Purdue compounds potently inhibit the SARS-CoV-2 3C-like protease (3CL-pro) and block SARS-CoV-2 replication in vitro. The researchers expect these compounds and their derivatives to possess drug-like properties.

Advantages:

-Potent inhibitor of SARS-CoV-2 3CL-pro enzyme

-Blocks SARS-CoV-2 viral replication

Applications:

-COVID-19 treatment

-Drug discovery

TRL: 2

Intellectual Property:

Provisional-Gov. Funding, 2022-02-07, United States | PCT-Gov. Funding, 2022-12-07, WO | CIP-Gov. Funding, 2024-08-06, United States

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Authors
Arun K Ghosh
Ashish Sharma

Further information
Joe Kasper
JRKasper@prf.org

Nathan Smith
nesmith@prf.org

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